

REMARKS

This communication is considered fully responsive to the Final Office Action mailed December 15, 2010. Claim 1 has been amended. New Claims 11-19 have been added. No claims have been cancelled.

Claim Rejections – 35 USC §103

Claim 1 is rejected under 35 USC §103(a) as being unpatentable over US Patent No. 6,263,682 (hereinafter “Winnington”) in view of US Patent No. 3,508,402 (hereinafter “Gray”). Applicants submit that claim 1 is patentable over Winnington in view of Gray since neither of the references individually or collectively disclose all the elements recited in amended claim 1. For example, the references individually and collectively fail to disclose a heat pump having a “a rotary unit comprising a housing having an interior surface and an exterior surface and an internal cavity substantially defined by the interior surface of the housing, the internal cavity containing a vapour generator, a condenser, an evaporator, and an absorber that are interconnected to constitute fluid flow paths for a volatile fluid component and a liquid absorbing it, the vapour generator comprising a heat exchanger having internal and external heat exchange surfaces, the internal and external heat exchanger surfaces being located completely within the internal cavity of the rotary unit with no portion of the external heat exchanger surface making contact with the interior surface of the housing, the heat exchanger comprising a thermally conductive fluid conduit adapted to receive a heating medium from a heat source external to the exterior surface of the housing of the rotary unit”. (Emphasis added.)

With respect to Winnington, all fluids flowing through the second solution heat exchanger 38 originate and always reside within the hermetically sealed unit 10. Winnington discloses the use of the second solution heat exchanger 38 which is located between a condenser 24 and an intermediate vapour generator 26 and the vapour absorber 40 to inhibit crystallization of the working fluid in the fluid flow path to the vapour absorber. The heat source for the second solution heat exchanger is a portion of the working fluid from the vapour generator, a source entirely internal to the heat pump. Contrary to the teachings of the present invention, the high

grade heat source 22 of Winnington is a burner located external to the hermetically sealed unit 10. As such, Winnington clearly teaches away from the invention of claim 1. With respect to Gray, Gray discloses a boiler for the purpose of producing high quality vapour to be delivered to a turbine. In Gray there is no “the vapour generator comprising a heat exchanger having internal and external heat exchange surfaces, the internal and external heat exchanger surfaces being located completely within the internal cavity of the rotary unit with no portion of the external heat exchanger surface making contact with the interior surface of the housing, the heat exchanger comprising a thermally conductive fluid conduit adapted to receive a heating medium from a heat source external to the exterior surface of the housing of the rotary unit.” As such, Applicants respectfully submit that claim 1 is patentable over Winnington in view of Gray since neither reference, either alone or in combination, disclose, teach nor otherwise suggest each and every limitation of claim 1.

Because claims 2-10 depend from claim 1, Applicants submit that claims 2-10 are patentable for at least the same reasons as claim 1.

Claims 8-10 are rejected under 35 USC §103(a) as being unpatentable over Winnington in view of US Patent No. 5,617,737 (hereinafter “Christensen”). Applicants submit that neither Winnington nor Christensen, alone or in combination, renders claims 8-10 obvious, because neither of the listed references discloses, teaches, or otherwise suggests each and every limitation of independent claim 1, from which claims 8-10 depend.

Claims 9 is rejected under 35 USC §103(a) as being unpatentable over Winnington in view of Christensen and further in view of JP 2000-274831 A (hereinafter “Nobuyuki”). Applicants submit that neither of Winnington, Christensen nor Nobuyuki, alone or in combination, renders claim 9 obvious because none of the listed references disclose, teach, nor otherwise suggest each and every limitation of independent claim 1, from which claim 9 depends.

Claims 10 is rejected under 35 USC §103(a) as being unpatentable over Winnington, in view of Gray and further in view of US Patent No. 5,009,085 (hereinafter “Ramshaw”).

Applicants disagree that Ramshaw discloses a condenser wherein “at least a portion of the condenser is in direct contact with the environment exterior to the rotary unit so that there is direct cooling of the condenser via the exterior environment.” In the written description and also as depicted in Figure 2, the condenser 23 of Ramshaw is taught and shown to be located completely within the rotary assembly and does not make any direct contact with the environment external to the rotary assembly. As such, Applicants respectfully submit that claim 10 is patentable over the cited references since none of the references, either alone or in combination, disclose, teach or otherwise suggest all the limitations of claim 10, nor that of amended claim 1 for which claim 10 depends.

Allowable Subject Matter

Applicants gratefully acknowledge the patentability of claims 2-7 as presented in the response to Final Office Action dated March 10, 2010. New Claim 11 includes all the limitations of previous claims 1 and 2 (as presented in the response to Final Office Action dated March 10, 2010), and is therefore allowable. Claims 12-19 depend from new Claim 11 and are considered allowable for at least the same reasons.

Conclusions

The Applicants respectfully submit that all rejections are obviated or traversed and respectfully that they be withdrawn. A timely Notice of Allowance is requested to be issued in this case. Applicants believe that no further fees or petitions are due with this filing. However, should any other such fees or petitions be required, please consider this a request therefore and authorization to charge Deposit Account No. 02-2093 as necessary.

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